

REMARKS

Reconsideration of this application as amended is respectfully requested. Claims 1-13, 15-20, 22-39, 41, 43-48, and 50 have been amended. Claim 2 has been cancelled. Claims 51-53 have been added. Claims 1-53 remain pending.

35 U.S.C. § 112 Rejections

Claims 1, 4-13, 15-20, 22-32, 34-39, 41-44, and 47-50 were rejected under 35 U.S.C § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully submits that the claim amendments provided herein overcome the rejections under § 112.

35 U.S.C. § 102 Rejections

Claims 1, 3, 6, 11, 14, 15, 21-23, 25, and 28 were rejected under 35 U.S.C. § 102(b) as being anticipated by Andre, U.S. Patent No. 5,950,809 (hereinafter "Andre"). Applicant respectfully submits that the claims, as amended herein, include features not described or suggested by Andre. Specifically, Claim 1 now claims an apparatus comprising:

a first key having a top surface;

a light source that is oriented towards the first key, the light source being capable of providing one or more selectable types of light, each type of light having different characteristics from the other types of light, *one of the differing characteristics being wavelength*; and

one or more glyphs on the top surface of the first key, each glyph having a given visual contrast with the remaining non-glyph region of the first key that is *dependent on the wavelength of the light* being provided from the light source.

Andre does not disclose or suggest indicating the selection of a glyph on a key by varying the wavelength of the light used to illuminate the key. As set forth in the detailed description of the present application, using lights of varying wavelength allows the selection of a glyph from a plurality of glyphs rather than from only one or two glyphs.

By contrast, Andre teaches an apparatus that indicates the selection of a region on a key using polarization. In other words, the selection is performed by filtering light waves of a given physical orientation rather than filtering light of a given wavelength. For example, as described in Andre, “[a]n illuminated keyboard with keys capable of selectively passing through polarized light of different polarization directions.” (Andre, Abstract). Accordingly, Applicants respectfully submit that Claim 1, as amended herein, and Claims 3, 6, 11, 14, 15, 21-23, 25, and 28 which depend from Claim 1 are valid under 35 U.S.C. § 102.

35 U.S.C. § 103 Rejections

The Examiner rejected Claims 7, 8, 10, 12, and 13 under 35 U.S.C. § 103 as being unpatentable over Andre in view of Ushimaru, U.S. Patent No. 5,642,929 (hereinafter “Ushimaru”). Applicant respectfully submits that Claims 7, 8, 10, 12, and 13 which depend from Claim 1 are allowable under § 103 for all of the reasons set forth above with respect to Claim 1. Neither Andre nor Ushimaru discloses or suggests indicating the selection of a glyph on a key by varying the wavelength of the light used to illuminate the key. As mentioned above, Andre discloses selection of a region on a key by using light of different polarizations. Ushimaru discloses “a lighted knob by which an operator can see

the presence of a specific indicating member in a knob case simply by checking whether or not the incorrect assembly preventive light is lit..." (Ushimaru, Column 2, Lines 11-14). The incorrect assembly preventive light section is lit depending on whether an opaque shield is shielding the light section from the light source. (Ushimaru, Column 4, Lines 14-45). As such, Applicant respectfully requests withdrawal of the rejections under § 103.

The Examiner rejected claims 16-18 and 26 under 35 U.S.C. § 103 as being unpatentable over Andre in view of Helstern, U.S. Patent No. 5,951,150 (hereinafter "Helstern"). Applicant respectfully submits that Claims 16-18 and 26 which depend from Claim 1 are allowable under § 103 for all of the reasons set forth above with respect to Claim 1. Andre discloses selection of a region on a key by using light of different polarizations. Andre does not disclose or suggest indicating the selection of a glyph on a key by varying the wavelength of the light used to illuminate the key. Helstern describes "a display system which is capable of being illuminated with different colors." (Helstern, Column 1, Lines 5-6). A display panel can be illuminated by one of several different colors of light, depending on the combination of different-colored light sources that are turned on. (Helstern, Column 1, Lines 26-36). However, Helstern does not disclose or suggest selecting a particular glyph on the display panel over another glyph on the display panel. Nor does Helstern disclose or suggest using different colored lights or lights of different wavelengths to increase or decrease the visual contrast between a glyph and the

remaining non-glyph portion of the display panel relative to the visual contrast between other glyphs and the remaining non-glyph portion of the display panel.

The Examiner rejected claims 32-50 under 35 U.S.C. §103 as being unpatentable over Andre in view of Helstern. Applicant respectfully submits that Claims 32-50, as amended herein, are neither taught nor suggested by any combination of Andre and Helstern. Claims 32-50 have been amended such that the ability to select a glyph is dependent on the color of the light illuminating the corresponding key. However, as mentioned above, Applicant respectfully submits that no combination of Andre and Helstern teaches or suggests the ability to select a glyph based on the color of the light illuminating the corresponding key. Accordingly, Applicant respectfully submits that Claim 16-18, 26 and 32-50 are valid under 35 U.S.C. § 103.

New Claim 51 depends from Claim 1 and includes the additional feature that the glyphs are “either symbols, emblems, marks, figures, patterns, characters, letters, digits, or punctuation marks.” Applicant respectfully submits that Claim 51 is allowable for all of the reasons set forth above with respect to Claim 1.

New Claim 52 recites an apparatus in which each key is divided into regions, with “each region having a given visual contrast with the remainder of the first key that is dependent on the wavelength of the light being provided from

the light source." Claim 53 is a method claim having substantially the same limitations. Applicant respectfully submits that none of the cited references, alone or in combination, disclose or suggest such a feature.

CONCLUSION

If there are any additional charges, please charge them to our Deposit Account Number 02-2666. If a telephone conference would facilitate the prosecution of this application, the Examiner is invited to contact Thomas C. Webster at (408) 720-8300.

Respectfully submitted,

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AMENDMENTS SHOWING CHANGES

Claims 1-13, 15-20, 22-39, 41, 43-48, and 50 have been amended. Please cancel claim 2. New claims 51-53 have been added.

1. (Once Amended) An apparatus comprising:

a first key;

a light source [, wherein the light source is] oriented towards the first key,
the light source providing two or more selectable types of light having different
characteristics, at least one of the different characteristics being wavelength;

[one or more keys;] and

[at least one glyph for each key, each glyph having a characteristic
corresponding to the light being provided from the light source]

one or more glyphs disposed on said first key, each glyph having a given
visual contrast that is dependent on the wavelength of the light being provided
from the light source.

2. (Cancelled)

3. (Once Amended) The apparatus as recited in claim 1, wherein [the]
additional characteristics of said light source include intensity [, wavelength, and]
or location.

4. (Once Amended) The apparatus as recited in claim 1, wherein [the top
surface of the key is] regions of the first key not comprising a glyph are white.

5. (Once Amended) The apparatus as recited in claim 1, wherein [the top
surface of the key is] regions of the first key not comprising a glyph are black.

6. (Once Amended) The apparatus as recited in claim 1, wherein the first
key is translucent.

7. (Once Amended) The apparatus as recited in claim 6, wherein [the] a
glyph on the first key is transparent.

8. (Once Amended) The apparatus as recited in claim 6, wherein [the] a glyph on the first key is translucent.

9. (Once Amended) The apparatus as recited in claim 1, wherein the first key is transparent.

10. (Once Amended) The apparatus as recited in claim 9, wherein [the] a glyph on the first key is translucent.

11. (Once Amended) The apparatus as recited in claim 1, [wherein the first key includes] including a plurality of additional keys having one or more glyphs disposed thereon, each glyph having a given visual contrast that is dependent on the wavelength of the light being provided from the light source.

12. (Once Amended) The apparatus as recited in claim 11, wherein the glyphs on [each one] two or more of the plurality of keys are transparent.

13. (Once Amended) The apparatus as recited in claim 11, wherein the glyphs [each one] on two or more of the plurality of keys are translucent.

14. (Unchanged) The apparatus as recited in claim 1, further comprising a selector coupled to the light source.

15. (Once Amended) The apparatus as recited in claim 14, wherein the selector selects [at least one characteristic of the light source] the type of light oriented towards the first key.

16. (Once Amended) The apparatus as recited in claim 15, wherein the characteristic of the type of light selected is [a] the wavelength of the light.

17. (Once Amended) The apparatus as recited in claim 16, wherein the wavelength of the type of light selected [is a complimentary] produces a color complementary to [a] the color of a [selected] glyph that corresponds to the selected type of light.

18. (Once Amended) The apparatus as recited in claim 16, wherein the selected [wavelength] type of light [of the light source increases] decreases the

visual contrast [of] between a [selected] corresponding glyph and the remainder of the key over the visual contrast between a non-corresponding glyph [other than the selected glyph] and the remainder of the key.

19. (Once Amended) The apparatus as recited in claim [16] 18, wherein the selected type of light [wavelength of the light source is not a] is of a [complimentary] complementary color to the color of the [selected] corresponding glyph.

20. (Once Amended) The apparatus as recited in claim 16, wherein the selected wavelength of the light source decreases the visual contrast [of] between a [selected] glyph corresponding to the type of light selected and the remainder of the key over the visual contrast between a non-corresponding glyph [other than the selected glyph] and the remainder of the key.

21. (Unchanged) The apparatus as recited in claim 1, wherein the light source is a light emitting diode ("LED").

22. (Once Amended) The apparatus as recited in claim 1, wherein the light source is at least [on] one of a group consisting of: a fluorescent light source, a laser light source, an incandescent light source, an ultraviolet light source, or an infrared light source.

23. (Once Amended) The apparatus as recited in claim 1, wherein the light source is under the first key.

24. (Once Amended) The apparatus as recited in claim 1, wherein the light source is above the first key.

25. (Once Amended) The apparatus as recited in claim 1, wherein the light source is toward a side of the first key.

26. (Once Amended) The apparatus as recited in claim 1, wherein the light source is located inside the first key.

27. (Once Amended) The apparatus as recited in claim [1] 14, wherein the [glyph] selector is a thumbwheel.

28. (Once Amended) The apparatus as recited in claim [1] 14, wherein the [glyph] selector is a second key.

29. (Once Amended) The apparatus as recited in claim [1] 14, wherein the [glyph] selector is voice activated.

30. (Once Amended) The apparatus as recited in claim [1] 14, wherein the [glyph] selector is a portion of a touch-screen.

31. (Once Amended) The apparatus as recited in claim [1] 14, wherein the [glyph] selector is implemented in software.

32. (Once Amended) A method comprising:
providing a key wherein the key includes at least one glyph wherein each glyph on the key is of [has] a different color; and
selecting one of the glyphs on the key [on at least one key] by lighting the key with a selected light source that produces light of a given wavelength which increases the visual contrast between the selected glyph and a remaining non-glyph portion of the key relative to the visual contrast between a non-selected glyph and the remaining non-glyph portion of the key.

33. (Once Amended) The method as recited in claim 32, wherein the light source [includes a selectable color] provides one or more selectable types of light, each type of light having a different wavelength.

34. (Once Amended) The method as recited in claim 33, wherein at least one of the selectable types of light [colors] causes the selected glyph to have an increased contrast when compared to another [the] glyph on the key [other than the selected glyph].

35. (Once Amended) The method as recited in claim 33, wherein at least one of the selectable [colors] types of light causes the selected glyph to have a

decreased contrast when compared to the non-selected glyph [other than the selected glyph].

36. (Once Amended) The method as recited in claim 33, wherein the [wavelength] color of the selected light source is [complimentary] complementary in color to the color of [the] a non-selected glyph.

37. (Once Amended) An apparatus comprising:
a keyboard wherein the keyboard includes a plurality of keys;
a plurality of glyphs on [each key] one or more keys of the keyboard
wherein each glyph [includes] on a given key is of a specified color;
a light source [including] to provide a plurality of selectable colors [wherein the light source is under the keyboard], wherein the specified color [selected] increases the visual contrast between a [of a selected] glyph on a key of the keyboard and a remaining non-glyph region of key over [a glyph other than the selected] the visual contrast between another glyph on the key and a remaining non-glyph region of the key; and

a glyph selector [wherein the glyph selector is] communicatively coupled to the light source to select from the plurality of selectable colors.

38. (Once Amended) The apparatus as recited in claim 37, wherein the light source includes a plurality of light sources and wherein at least one of the plurality of light sources is under [each key] one or more keys.

39. (Once Amended) An apparatus comprising:
a keyboard [wherein the keyboard includes] comprising a plurality of keys;
a plurality of glyphs on [each] one or more of the keys of the keyboard
wherein each glyph on a given key [includes] is of a specified color;
a light source [including] to provide a plurality of selectable colors,
[wherein the light source is above the keyboard,] wherein the [selected] specified color increases the visual contrast between a [of a selected] glyph on a key of the

keyboard and a remaining non-glyph region of the key over [a glyph other than the selected] the visual contrast between another glyph on the key and the remaining non-glyph region of said key; and

a glyph selector [wherein the glyph selector is] communicatively coupled to the light source to select from the plurality of selectable colors.

40. (Unchanged) The apparatus as recited in claim 39, wherein the light source is directed toward the keyboard.

41. (Once Amended) An apparatus comprising:

a keyboard [wherein the keyboard includes] having a perimeter and comprising a plurality of keys;

a plurality of glyphs on [each] one or more of the keys of the keyboard wherein each glyph on a given key [includes] is of a specified color;

a light source [including] to provide a plurality of selectable colors, wherein the light source is located on or outside of the perimeter of the keyboard, wherein the [selected] specified color increases the visual contrast between a [of a selected] glyph on a key of the keyboard and a remaining non-glyph region of the key over [a glyph other than the selected] the visual contrast between another glyph on the key and the remaining non-glyph region of said key; and

a glyph selector [wherein the glyph selector is] communicatively coupled to the light source to select from the plurality of selectable colors.

42. (Unchanged) The apparatus as recited in claim 41 wherein a light ray from the light source is substantially conducted laterally from the perimeter of the keyboard through at least one side of at least one of the plurality of keys.

43. (Once Amended) The apparatus as recited in claim 41, wherein a light ray from the light source is substantially conducted laterally [from] through a first key of [a plurality of keys] the keyboard to a second key of the keyboard [plurality of keys].

44. (Once Amended) A method comprising:
providing a keyboard wherein the keyboard includes a plurality of keys wherein [each] one or more of the keys includes a plurality of glyphs and wherein each glyph of the plurality of glyphs has a color;
providing a light source with a plurality of selectable colors; and
selecting at least one of the plurality of selectable colors wherein the selected color or colors increases the visual contrast between [of] a [selected] glyph and a remaining non-glyph region of a key over the visual contrast between [a] another glyph on the same key [other than the selected glyph] and the remaining non-glyph region on the same key.

45. (Once Amended) The method as recited in claim 44, wherein the light source is located within [each] one or more or all of the plurality of keys.

46. (Once Amended) The method as recited in claim 44, wherein the light source includes a plurality of light sources and wherein at least one of the plurality of light sources is under [each] one or more of the plurality of keys.

47. (Once Amended) A method comprising:
providing a keyboard wherein the keyboard includes a plurality of keys wherein [each] one or more of the keys includes a plurality of glyphs and wherein each glyph of the plurality of glyphs has a color;
providing a light source with a plurality of selectable colors wherein the light source is located above the keyboard; and
selecting at least one of the plurality of selectable colors wherein the selected color or colors increases the visual contrast between [of] a [selected] glyph and a remaining non-glyph region of the corresponding key over the visual contrast between [a] another glyph on the same key [other than the selected glyph] and the remaining non-glyph region on the same key.

48. (Once Amended) A method comprising:

providing a keyboard having a perimeter wherein the keyboard includes a plurality of keys wherein each one of the keys includes a plurality of glyphs and wherein each glyph on each key has a color;

providing a light source with a plurality of selectable colors wherein the light source is located [in] on or outside of the perimeter of the keyboard; and

selecting at least one of the plurality of selectable colors wherein the selected color or colors increases the visual contrast between [of] a [selected] glyph and a remaining non-glyph region of the corresponding key over the visual contrast between [a] another glyph on the same key [other than the selected glyph] and the remaining non-glyph region on the same key.

49. (Unchanged) The apparatus as recited in claim 48 wherein a light ray from the light source is substantially conducted laterally from the perimeter of the keyboard through at least one side of at least one of the plurality of keys.

50. (Once Amended) The apparatus as recited in claim 48, wherein a light ray from the light source is substantially conducted laterally [from] through a first key of the keyboard [a plurality of keys] to a second key of the keyboard [plurality of keys].

51. (New) The apparatus as recited in claim 1, wherein the glyphs are either symbols, emblems, marks, figures, patterns, characters, letters, digits, or punctuation marks.

52. (New) An apparatus comprising:

a first key;

a light source oriented towards the first key, the light source providing two or more selectable types of light having different characteristics, at least one of the differing characteristics being wavelength; and

one or more regions into which the key is divided, each region having a given visual contrast with the remainder of the first key that is dependent on the wavelength of the light being provided from the light source.

53. (New) A method comprising:

providing a key wherein the key is partitioned into one or more given regions wherein each region is of a different color; and

selecting one of the regions by lighting the key with a selected light source that produces light of a given wavelength which increases the visual contrast between the selected region and the remaining portion of the key relative to the visual contrast between the non-selected region and the remaining portion of the key.